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REMARKS

Claims 1-31 were examined. Applicant hereby requests further examination and reconsideration of the application in view of the following remarks.

Claims 7, 15, 23 and 30 are objected to because the Examiner believed the use of slash marks ("/") in the phrases "Association/Electronics" and "TIA/EIA-136" made the claim indefinite. Applicant respectfully disagrees. As used in the claims at issue, the character "/" or slash mark is part of the *formal title* of a single air interface standard promulgated by two different bodies acting in unison. It is not possible to delete the slash mark ("/") or change the slash mark ("/") to another character or word (e.g., "and" or "or"), as requested, without causing the standard to be misidentified in the claims. Consequently, the use of the slash mark ("/") in claims 7, 15, 23 and 30 does not render the claims indefinite. Applicant therefore requests that the objection to claims 7, 15, 23 and 30 be withdrawn.

Claims 1, 3, 5, 8-9, 11, 13-14, 16-17, 19-21, 24, 26-29 and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Souissi (U.S. Patent No. 6,785,556) in view of Lai et al. (U.S. Pub. No. 2002/0086702), and further in view of Lodenius (U.S. Patent No. 5,923,761). Independent claims 1, 9, 17 and 24 recite that the first protocol stack and the second protocol stack are supported *concurrently* by at least one chipset within the mobile telephone. None of the cited references disclose, teach or suggest a mobile telephone or a system for controlling a mobile telephone comprising a mode manager for managing switching of the system between a first mode utilizing a first air interface standard supported by a first protocol stack and a second mode utilizing a second air interface standard supported by a second protocol stack, the first protocol stack and the second protocol stack being supported *concurrently* by at least one chipset of the mobile telephone; a user interface for communicating information and commands between the first and second protocol stacks and a user for controlling the mobile telephone; and an application layer for reducing functional interface between the first and second protocol stacks to layers of the first and second protocol stacks subsequent to the user interface, wherein control of the mobile telephone is provided via a single man machine interface that is substantially consistent across the first and second modes as variously claimed in

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independent claims 1, 9, 17 and 24.

As noted by the Examiner, the Souissi and Lai references fail to teach or suggest a mode manager for managing switching of the system between a first mode utilizing a first air interface standard supported by a first protocol stack and a second mode utilizing a second air interface standard supported by a second protocol stack wherein the first protocol stack and the second protocol stack are supported *concurrently* by at least one chipset of the mobile telephone.

The newly cited ancillary reference, Lodenius, fails to make up for this defect in the Souissi and Lai references, since it also fails to teach or suggest a first protocol stack and a second protocol stack that are supported *concurrently* by at least one chipset of a mobile telephone. Instead, Lodenius discloses a single chip semiconductor device for use in a GSM mobile telephone, which provides all or most of the various functions required by the mobile telephone. However, this single chip semiconductor device still only supports a *single protocol stack* supporting a single air interface, specifically the Groupe Special Mobile (GSM) air interface. *See, e.g.*, Lodenius, column 2, lines 37-46. Thus, the teaching of Lodenius adds nothing to the teaching of the originally cited references, Souissi and Lai, other than to disclose that the various functions required by a mobile telephone may be provided by a single chip semiconductor device. *See* Lodenius, column 1, lines 10-14.

In making the rejection under 35 U.S.C. § 103, the Examiner states that

> it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Souissi in view of Lai to incorporate the first protocol stack and the second protocol stack being supported concurrently by at least one chipset of the mobile telephone as taught by Lodenius.

Applicant disagrees. As noted, none of the cited references, Souissi, Lai or Lodenius, teach or suggest a first protocol stack and a second protocol stack that are supported concurrently. The Examiner further states that

> [t]he motivation for the modification is to have doing so in order to support multiple protocol so that it is possible to reduce additional chip for supporting additional protocol without having any inconvenience.

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However, there exists no motivation or suggestion from the prior art to modify these references to provide a first protocol stack and a second protocol stack that are supported concurrently, since none are directed to the control of multi-mode, multi-band, mobile telephones via single hardware and software man machine interfaces (MMIs). Instead, the primary reference, Souissi, is directed to a software configurable wireless modem that can be configured using software downloaded by a host computer, while the ancillary references Lai and Lodenius are directed to a PDA having a mobile telephone function and a single chip semiconductor device for providing the various functions required by a mobile telephone, respectively.

Consequently, none of the references, Souissi, Lai et al. or Lodenius, either alone or in combination, disclose, teach or suggest a mobile telephone or a system for controlling a mobile telephone comprising a mode manager for managing switching of the system between a first mode utilizing a first air interface standard supported by a first protocol stack and a second mode utilizing a second air interface standard supported by a second protocol stack, the first protocol stack and the second protocol stack being supported concurrently by at least one chipset of the mobile telephone as claimed in claims 1, 9, 17 and 24.

The Souissi reference also fails to disclose, teach or suggest a user interface for communicating information and commands between the first and second protocol stacks and a user for controlling the mobile telephone and an application layer for reducing functional interface between the first and second protocol stacks to layers of the first and second protocol stacks subsequent to the user interface, wherein control of the mobile telephone is provided via a single man machine interface that is substantially consistent across the first and second modes. As previously argued, the displays disclosed by Souissi are only used to allow the user to automatically reconfigure the software configurable modem (FIGS. 9 and 10). The displays are not used by the user of the wireless modem to control operation the protocol stacks after the software is loaded. Specifically, Souissi discloses:

> FIG. 9 illustrates a display of a wireless PDA showing several icons from which a user can select to automatically reconfigure the software configurable modem. FIG. 10

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> illustrates a display of a computer, such as a laptop, showing a menu from which a user can choose to automatically reconfigure the modem.

Souissi, column 7, line 64 through column 8, line 2. Thus, Souissi fails to teach or suggest a user interface for communicating information and commands between concurrently supported first and second protocol stacks and the user for controlling the mobile telephone. Additionally, Souissi discloses that when a new protocol stack is downloaded and installed, the software supported by that protocol stack is also replaced. In particular, Souissi provides that

> [u]pon receiving the request at step 830, the host computer CPU downloads from a storage unit the appropriate protocol stack, and installs it in the modem with the help of the modem's CPU; downloads from the storage unit the DSP code and configures the baseband DSP chip with the help of the modem's CPU; and downloads from the storage unit software to configure the wireless modem RF front end hardware, including software for the direct conversion stage and software for the amplifier, and sends this software to the modem CPU to reconfigure the RF front end.

Souissi, Column 7, lines 51-61. Further, only one protocol stack is supported at a time. Thus, the Souissi wireless modem does not require an application layer *for reducing functional interface between the first and second protocol stacks to layers of the first and second protocol stacks subsequent to the user interface.* Consequently, Souissi fails to teach or suggest such an application layer. Finally, Souissi does not describe a man machine interface for the wireless modem that is used when the modem is operational. Thus, Souissi does not teach or suggest a system where control of a mobile telephone is provided via a single man machine interface that is substantially consistent across the first and second modes. Again, neither Lai et al. nor Lodenius make up for these defects in the Souissi reference, and no suggestion or motivation in the prior art to modify Souissi, Lai et al. or Lodenius to provide the features recited.

With respect to claims 3, 11, 19 and 26, Souissi fails to teach or suggest a mode manager that comprises a man machine interface manager for translating information between the first air interface mode and the second air interface mode wherein the first protocol stack supporting the first air interface and the second protocol stack supporting

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the second air interface are supported concurrently by one or more chipsets of the mobile telephone.

With respect to claims 5 and 21, Souissi fails to teach or suggest a common database for storage of user data utilized by the first and second protocol stacks, wherein the first and second protocol stacks are supported concurrently by one or more chipsets of the mobile telephone.

With respect to claims 8, 16, 24 and 31, Souissi fails to teach or suggest that the user interface, application layer, and mode manager are integrated with the first protocol stack of concurrently supported first and second protocol stacks.

Again, the ancillary references, Lai et al. and Lodenius fail to make up for these defects in the teaching of the Souissi reference since they also fail to disclose, teach or suggest a mode manager for managing switching of the system between a first mode utilizing a first air interface standard supported by a first protocol stack and a second mode utilizing a second air interface standard supported by a second protocol stack, the first protocol stack and the second protocol stack being supported concurrently by at least one chipset of the mobile telephone; a user interface for communicating information and commands between the first and second protocol stacks and a user for controlling the mobile telephone; and an application layer for reducing functional interface between the first and second protocol stacks to layers of the first and second protocol stacks subsequent to the user interface, wherein control of the mobile telephone is provided via a single man machine interface that is substantially consistent across the first and second modes as variously claimed in claims 1, 9, 17 and 24 and their dependent claims. Moreover, there exists no suggestion or motivation from these references, or the prior art in general, to modify the references' teachings to provide this feature.

Claims 2, 10 and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Souissi in view of Lai et al. and Lodenius, and further in view of Lim (U.S. Patent No. 6, 697,355). As noted by the Patent Office, Souissi, Lai et al. and Lodenius fail to teach or suggest a router for routing information to one of the first protocol stack and the second protocol stack. Instead, Lim is relied up for this teaching. However, as previously noted, Lim discloses a router for routing information between the protocol stacks of two

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separate devices over a network. Specifically, Lim discloses:

> FIG. 5 shows a radio packet data protocol stack used during communication between two mobile hosts according to the present invention. Particularly, the mobile router of the caller opens the radio link protocol (RLP) and the mobile router of the receiver opens the RLP. Afterwards, the PPP, the network layer and the upper layers are opened allowing communication between two mobile stations within the same network.

Lim, column 7, lines 52-60. Consequently, Lim also fails to teach or suggest a router for routing information to one of the first protocol stack and the second protocol stack, wherein the first and second protocol stacks are supported concurrently by one or more chipsets of the mobile telephone. Moreover, there exists no suggestion or motivation from these references, or the prior art in general, to modify the teaching of Souissi, Lai et al., Lodenius, or Lim to provide this feature.

Claims 4, 12 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Souissi in view of Lai et al. and Lodenius, and further in view of Schenker et al. (U.S. Patent No. 6,633,223). As noted by the Patent Office, Souissi, Lai et al. and Lodenius fail to teach or suggest a bridge for providing communication of information between the first protocol stack and the second protocol stack. Instead, Schenker et al. is relied upon for this teaching. However, as previously argued, Schenker et al. discloses a system employing bridge architecture for communication between different devices in a network. Specifically, Schenker et al. provides that the

> [b]ridge architecture for communication with access points may employ PC cards, adapters, NDIS, ODI drivers, terminal emulation and standard protocol stacks.

Schenker et al., column 11, lines 61-63. Consequently, Schenker et al. also fails to teach or suggest a bridge for providing communication of information between the first protocol stack and the second protocol stack wherein the first and second protocol stacks are supported concurrently by one or more chipsets of the mobile telephone. Moreover, there exists no suggestion or motivation from these references, or the prior art in general, to modify the teaching of Souissi, Lai et al., Lodenius, or Schenker et al. to provide this feature.

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Claims 6 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Souissi in view of Lai et al. and Lodenius, and further in view of Verma et al. (U.S. Pub No. 2003/00224792). As noted by the Patent Office, Souissi, Lai et al. and Lodenius fail to teach or suggest a call database for storing call related data by the first and second protocol stacks. Instead, Verma et al. is relied upon for this teaching. However, Verma et al. fails to teach or suggest a call database for storing call related data by the first and second protocol stacks which are supported concurrently by one or more chipsets of the mobile telephone. Further, there exists no suggestion or motivation from these references, or the prior art in general, to modify the teaching of Souissi, Lai et al., Lodenius, or Verma et al. to provide this feature.

Claims 7, 15, 23 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Souissi, in view of Lai et al. and Lodenius, and further in view of Whinnett et al. (U.S. Patent No. 5,943,333). Claims 7, 15, 23 and 30 depend from independent claims 1, 9, 17 and 24, respectively, and are believed to be allowable for the reasons argued above.
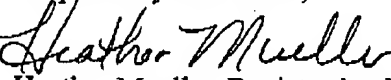
Accordingly, claims 1-31 are believed to be patentable over the cited references for at least the above reasons. Withdrawal of the rejections of claims 1-31 under 35 U.S.C. § 103 and 35 U.S.C. § 112 is therefore requested.

CONCLUSION

Applicant has made an earnest attempt to place this application in condition for allowance. For at least the foregoing reasons, Applicants respectfully request reconsideration and full allowance of all pending claims.

PLEASE MAIL CORRESPONDENCE TO: Respectfully Submitted,

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